



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,171	07/11/2003	Ki-Tag Jeong	1293.1902	2998

21171 7590 02/07/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

CHEN, TIANJIE

ART UNIT	PAPER NUMBER
----------	--------------

2656

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,171

Applicant(s)

JEONG, KI-TAG

Examiner

Tianjie Chen

Art Unit

2656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Takashima (US 6,787,941).

Claims 1, 5, 6, 10, 11, 15, 16, and 20; Takashima shows an actuator of a hard disk drive in Fig. 1, having a base plate and a voice coil motor, to move a magnetic head to record and reproduce data with respect to a disk to a predetermined position on the disk, including: and Fig. 8 shows a suspension 6 supporting a slider 5, where the magnetic head is mounted; and an arm 8 included on the base plate of the hard disk drive to pivot, the arm including the suspension at a leading end portion of the arm and a coil 7 (Fig. 8) of the voice coil motor coupled to a rear end portion of the arm, wherein the coil is coupled to the rear end portion of the arm by an outer mold (See Figs. 8 and 9 with added marks in next page) formed to encompass an outer circumference of the coil, an inner mold formed inside the coil, and a connection mold connecting the outer mold and the inner mold is formed at least part of a surface of a non-effective portion of the coil except for an effective portion arranged to be perpendicular to a direction in which the arm pivots.

FIG. 8 Prior Art

Patent

Sep. 7, 2004

Sheet 7 of 10

US 6,787,941 B2

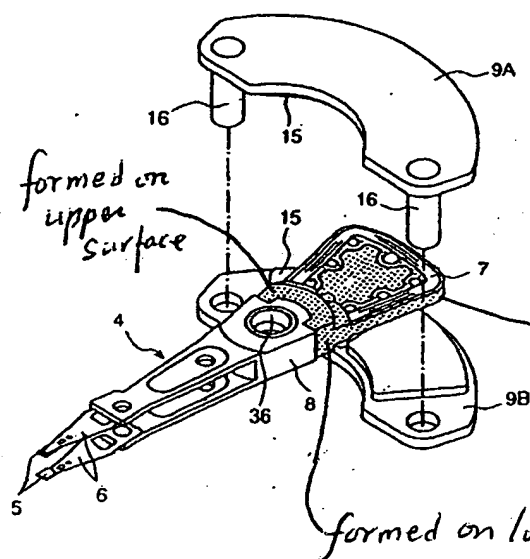
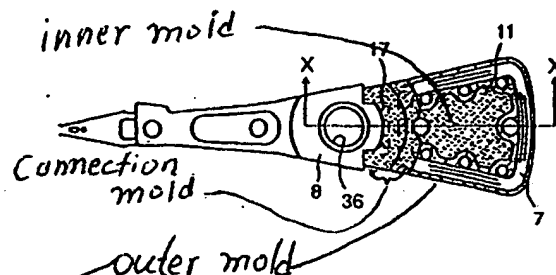


FIG. 9 Prior Art



Claim 6, Takashima also shows a hard disk drive that reproduces data stored in a disk or records data on the disk by using a magnetic head, the hard disk drive including: an actuator including an arm included on a base plate of the hard disk drive to pivot and a suspension at a leading end portion of the arm and supporting a slider on which the magnetic head is mounted; and a voice coil motor including a coil coupled to a rear end portion of the arm and a magnet arranged, which is inherently separated a predetermined distance from the coil and to face at least one of upper and lower surfaces of the coil, and pivoting the actuator in a predetermined direction by the interaction between current flowing through the coil and a magnetic field formed by the magnet.

Claims 2, 7, 12, and 17; Takashima further shows that the connecting mold is formed at an entire surface of the non-effective portion of the coil.

Art Unit: 2656

Claims 3, 8, 13, and 18; Takashima further shows that the connection mold is formed in a middle portion along a lengthwise direction of the non-effective portion of the coil.

Claims 4, 9, 14, and 19; Takashima further shows that the connection mold is formed at at least two positions along a lengthwise direction of the non-effective portion of the coil.

Claims 5, 10, 15, 20; Takashima further shows the connecting mold is also formed on the lower surface of the non-effective portion of the coil.

Claim 21, Takashima shows a subassembly of a hard disk drive, including: a voice coil motor including a coil that has a upper and lower surface with a non-effective portion; an inner mold formed inside said coil; an outer mold formed on an outer circumference of said coil; and a connection mold connecting said outer mold and said inner mold wherein the connection mold is formed both on said upper and said lower surface of the non-effective portion of the coil.

Claim 22, as described above, Takashima shows an actuator assembly of a hard disk drive, comprising: an arm, comprising: a voice coil, an outer mold holding the voice coil on an outside; an inner mold holding the voice coil on an inside; and a connection mold connecting the inner mold and the outer mold across the coil.

Claim 23, Takashima further shows in Fig. 10 attached in next page that the arm has a pivot, the coil has a side away from the pivot and the connection mold is located on the side away from the pivot.

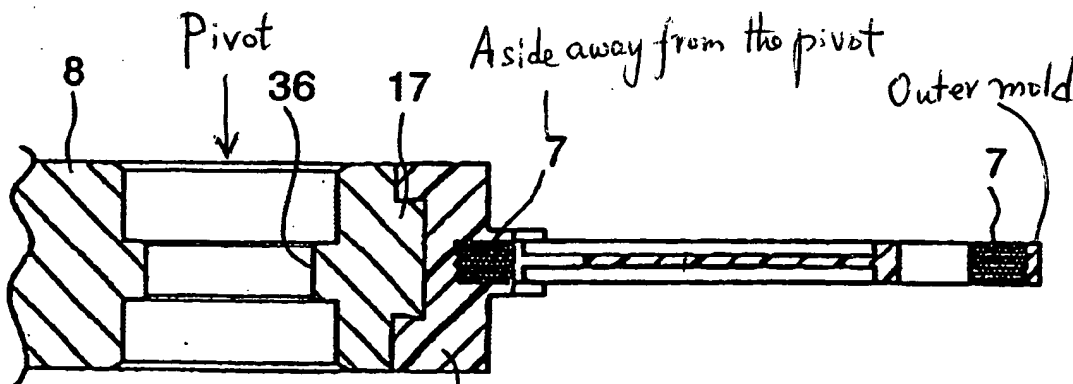
Response to Arguments

2. Applicant's arguments filed 12/16/2005 have been fully considered but they are not persuasive.

Applicant argues: "Figure 10 is cross-sectional view of Fig. 9. In Figure 10, the alleged 'outer mold' is the same pad as holding member 11 as the thin/thick stripes of the cross section show. That is, the alleged inner mold 11 is the same piece as the alleged outer mold. In this context, something is missing, either the inner or outer mold."

Examiner's answer: Applicant misreads the figure. The correct way of reading Figure 10 is as follow:

FIG. 10 Prior Art



Since Applicant's reading is incorrect, Applicant's argument is moot.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and

Art Unit: 2656

any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER